

What is claimed is:

1-27. (canceled)

28. (previously presented) A submerged entry nozzle for use in the continuous casting of liquid metal, the nozzle comprising: a) a body having a central bore through most of the body, the bore terminating in a closed end; b) a plurality of pairs of discharge outlets symmetrically disposed about a longitudinal axis of the nozzle; wherein the cross-sectional area of the central bore decreases between pairs of discharge outlets, and wherein the ratio of height to width of any outlet is one or less, wherein the total area of all outlets is less than twice the cross-sectional area of the central bore that is perpendicular to the flow of the liquid metal, and wherein all discharge outlets are directed at an angle not greater than approximately 90 degrees to the end of the longitudinal axis of the nozzle directed towards the closed end of the bore.

29. (currently amended) The submerged entry nozzle of claim 28, wherein the width of outlets closer to the closed end of the nozzle have the same width as ~~nozzles~~ outlets further from the closed end of the nozzle.

30. (canceled)

31. (previously presented) The submerged entry nozzle of claim 28, wherein the total area of all outlets is at least equal to the cross-sectional area of the central bore that is perpendicular to the flow of the liquid metal.

32. (previously presented) The submerged entry nozzle of claim 28, wherein the nozzle comprises at least two pairs of outlets.

33. (previously presented) The submerged entry nozzle of claim 28, wherein the nozzle comprises three pairs of outlets.

34. (previously presented) The submerged entry nozzle of claim 28, wherein the angle formed between each pair of outlets and the longitudinal axis of the nozzle is between approximately 30 and approximately 90 degrees.

35. (previously presented) The submerged entry nozzle of claim 28, wherein the angle formed between the pair of outlets furthest from the closed end and the longitudinal axis of the nozzle is approximately 90 degrees.

36. (previously presented) The submerged entry nozzle of claim 28, wherein the angle formed between each pair of outlets and the longitudinal axis of the nozzle is approximately 90 degrees.

37. (previously presented) The submerged entry nozzle of claim 28, wherein the angle formed between each pair of outlets and the longitudinal axis of the nozzle is different from the angle formed between each of the other pairs of outlets and the longitudinal axis of the nozzle.

38. (previously presented) The submerged entry nozzle of claim 33, wherein the angle formed between each of the pairs of outlets and the longitudinal axis of the nozzle is approximately 60 degrees, 75 degrees and 90 degrees, respectively.

39. (previously presented) The submerged nozzle of claim 28, wherein the cross-sectional area of the central bore is not decreased around the entire circumference of the central bore.

40. (previously presented) The submerged nozzle of claim 39, wherein the cross-sectional area of the central bore is not decreased in a radial direction that is perpendicular to the radial direction of the outlets.

41. (previously presented) The submerged nozzle of claim 40, wherein the cross-sectional area of the central bore is not decreased continuously in a radial direction that is perpendicular to the radial direction of the outlets.

42. (currently amended) A submerged entry nozzle for use in the continuous casting of liquid metal, the nozzle comprising: a) a body having a central bore through most of the body, the bore terminating in a closed end; b) a plurality of pairs of discharge outlets symmetrically disposed about a longitudinal axis of the nozzle; wherein the cross-sectional area of the central bore decreases between pairs of discharge outlets, and wherein the width of outlets closer to the closed end of the nozzle have the same width as ~~nozzles~~ outlets further from the closed end of the nozzle, wherein the total area of all outlets is less than twice the cross-sectional area of the central bore that is perpendicular to the flow of the liquid metal, and wherein all discharge outlets are directed at an angle not greater than approximately 90 degrees to the end of the longitudinal axis of the nozzle directed towards the closed end of the bore.

43. (cancelled)

44. (previously presented) The submerged entry nozzle of claim 42, wherein the total area of all outlets is at least equal to the cross-sectional area of the central bore that is perpendicular to the flow of the liquid metal.

45. (previously presented) The submerged entry nozzle of claim 42, wherein the nozzle comprises at least two pairs of outlets.

46. (previously presented) The submerged entry nozzle of claim 42, wherein the nozzle comprises three pairs of outlets.

47. (previously presented) The submerged entry nozzle of claim 42, wherein the angle formed between each pair of outlets and the longitudinal axis of the nozzle is between approximately 30 and approximately 90 degrees.

48. (previously presented) The submerged entry nozzle of claim 42, wherein the angle formed between the pair of outlets furthest from the closed end and the longitudinal axis of the nozzle is approximately 90 degrees.

49. (previously presented) The submerged entry nozzle of claim 42, wherein the angle formed between each pair of outlets and the longitudinal axis of the nozzle is approximately 90 degrees.

50. (previously presented) The submerged entry nozzle of claim 42, wherein the angle formed between each pair of outlets and the longitudinal axis of the nozzle is different from the angle formed between each of the other pairs of outlets and the longitudinal axis of the nozzle.

51. (previously presented) The submerged entry nozzle of claim 47, wherein the angle formed between each of the pairs of outlets and the longitudinal axis of the nozzle is approximately 60 degrees, 75 degrees and 90 degrees, respectively.

52. (previously presented) The submerged nozzle of claim 42, wherein the cross-sectional area of the central bore is not decreased around the entire circumference of the central bore.

53. (previously presented) The submerged nozzle of claim 52, wherein the cross-sectional area of the central bore is not decreased in a radial direction that is perpendicular to the radial direction of the outlets.

54. (previously presented) The submerged nozzle of claim 52, wherein the cross-sectional area of the central bore is not decreased continuously in a radial direction that is perpendicular to the radial direction of the outlets.